The Boston Medical and Surgical Journal

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November 6, 1919

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Original Articles.

NEUROLOGICAL SURGERY AND THE WAR.*

BY HARVEY CUSHING, M.D., BOSTON.

I HAVE been prevailed upon to address you briefly under the title of "What Neurological Surgery Has Gained from the War." This is a common type of question and one which is difficult satisfactorily to answer in this period of readjustment from the confusion and demoralization of the past few years. Neurological surgery has undoubtedly profited something and will profit still more, for many neuro-surgical conditions still remain to be treated; but at this immediate juncture the losses are more evident than the gains; productive investigations have been interrupted, and the most eminent contributor to this branch of surgery lies under the sands of Mesopotamia,—a victim of the far-reaching conflict.

In this early post-bellum period one may speak only in broad generalities of the profit side of the column. Our main object appears to have been accomplished,—the defeat and ultimate destruction of Prussian militaristic aggression,—and we hope for an era of better international understanding and relations. To this end we have been ready to sacrifice all, and at this uncertain moment of peace treaties little else matters. We have had to cut back the tree to get out the disease, and just what form it will assume when new sprouts are put forth only time can tell; but unquestionably, all of us, on whatever branch we formerly perched, will be more or less affected.

It would be much more befitting at this time, it seems to me, to inquire what neurological surgery has contributed to the war than what it has gained from it; for neuro-surgeons, so called, like other surgeons, enlisted with the intention of giving service rather than with any expectation of receiving surgical training or experience.

In the lay mind the idea is harbored that the war has been a veritable mecca of experiences, particularly for the young surgeon. He may have gained confidence, it is true, and may have learned much regarding fractures and wound contamination that is applicable to the traumatic surgery of civil life, but those who know realize that a military hospital in time of war is far from an ideal surgical training ground for those who must subsequently adapt their experiences with battle wounds in healthy young

* Read before the Annual Meeting of the Massachusetts Medical Society, June 4, 1919.

adults to the treatment of pathological conditions in the diseased and infirm. When operative work comes to military surgeons—if they are so situated that it comes at all—it occurs, for the most part, in spasms, when inadequate clinical notes are made—sometimes none at all; when there is scant time and few facilities for "cleaning up"; when a succession of wounded who may not even have been taken from their stretchers are borne in, operated upon, taken away and never seen again. I am visualizing scenes in forward hospitals, but it is in such areas that the bulk of the major surgery of war must be done, and under these conditions even a surgeon with long established habits begins to lose his operative fastidiousness, and makes the usual excuse—it's the best one can do: *C'est la guerre.*

It of course is not always as bad as this, and some military hospitals, like Depage's Ambulance in La Panne, more favorably situated, may retain their selected personnel and continue to do as careful work in recording, studying, and operating upon their patients as in a civil hospital; some officers, indeed, may even make notable contributions to our knowledge meanwhile. But except in special hospitals set apart for special work, where officers may be freed from all military obligations, an investigative spirit is seldom fanned into flame.

The conjunction of ability and opportunity, rare enough at all times, is still more so in time of war; for when these two factors essential to the advance of knowledge happen to be thrown together, so many administrative difficulties are interposed and interruptions are so frequent as to render effort fruitless. That Carrel and Dakin, in a special hospital at Compiègne, under a Rockefeller Institute grant, were able to work out a new technique for the treatment of septic wounds; that Strong and his co-workers, under the auspices of the Red Cross Research Committee, could solve the relation of the louse to trench fever show that co-operative investigations even in the zone of the armies were possible and might prove to be most profitable; but these essentially productive studies are notable exceptions to the general rule. The signficance of these two pieces of work lies not only in the immediate applicability of the results on a large scale to check the wastage of wounded and sick, but in the fact that in each instance the investigators were freed for the time being from other military duties and thus, undisturbed, were privileged to receive and work intensively upon material carefully selected for the single purpose of solving a specific problem. I, by no means, wish to imply that these were the only creditable studies done in the hospitals overseas; far from it; but merely that they are outstanding examples of what may be accomplished by bringing ability and opportunity together and fostering them even within the distracting sounds of battle.

Many physicians may gain experience in a given subject but not many are capable of contributing to it, and then only when clinical material and facilities are brought to hand. This is true of medicine and surgery in general, and even more so of such a special branch as the surgery of the nervous system. During the course of the war efforts were made, particularly in some of the British armies, to forward the knowledge of wound treatment for certain major types of injuries by sorting and routing them to specified hospitals in the army zone. The privilege was thus afforded to a selected few to broaden their experience, and in many cases definite contributions were made to the technical management of these more serious conditions—notably penetrating wounds of the chest, abdomen, skull, and knee joint, and fractures of the femur,—with the result of a general lowering of the mortality from wounds of these critical types.

It was in one of these hospitals to which all head cases were routed that I had my most interesting and satisfactory period of service while overseas, and incomparable opportunities were afforded to study the symptomatology, controlled by operation or autopsy, of acute cerebral lesions in every imaginable part of the brain. But there was no observer sufficiently trained to take full advantage of the situation whose services could be spared from the immediate and urgent surgical tasks before us, nor was it possible to retain cases for a sufficient length of time to investigate fully their neurological results. Hence, aside from some possible improvements in the operative handling of cranio-cerebral injuries, the utilization of the material for the acquirement of information regarding cerebral function which could be of general future value was impossible.

This sort of study was necessarily relegated to base areas and home hospitals. There, ad-

vantage was doubtless taken of the opportunity by many, and unquestionably the next few years will see the publication of observations of great value. Among some of the notable contributions which have already appeared may be mentioned the important studies of acute cerebellar lesions and of occipital lobe injuries by Gordon Holmes, and the illuminating series of papers by Henry Head and his co-workers on the mass reflex, automatic bladder, and other phenomena which accompany spinal cord transections.

I have always regretted that the British, in view of their unquestioned leadership in neurology, did not set aside early in the war some special hospital or hospitals where at least the bulk of the organic neurological cases could be congregated and where the neurological and surgical problems relating to lesions of the brain, spinal cord, and peripheral nerves could be worked over on a large scale by the concentrated efforts of their abler men. Such an arrangement would have been best for the victims of the injuries, and far more likely to furnish new information, useful not only now but for all time. Had something comparable to Mitchell, Moorehouse, and Keen's wards at Turner's Lane in the Civil War, though on a far larger scale, been started early it would have served as an example for our own medical corps to follow. However, a soldier with a serious injury to the nervous system is finished from a military standpoint and it is perhaps more than human to expect that an army, especially when fighting overseas, will make elaborate provision for his care.

The French, it is true, had a Centre Neurologique for each army, where were congregated both the functional and organic neurological cases, and the Salpêtrière in Paris served as a great depository for neurological material of all types in the established clinics of Déjerine and Pierre Marie. Perhaps the most immediately useful contributions from the standpoint of neurological surgery which have thus far emerged during the war were the two monographs by Tinel from Déjerine's clinic and by Madame Benisty from that of Pierre Marie on the subject of peripheral nerve injuries.

In our own army—well, the "cow jumped over the moon." What might have been accomplished in the way of organization had the war only lasted another year was the common talk of many tongues after the armistice. Let us be thankful that we were not given an opportunity to demonstrate our perfections. After all, a scant six months of actual combat with an almost invisible army which suddenly swells to two million will seriously strain any organization, and the corps whose unfortunate task it is to care for the casualties, which are merely an incumbrance to the army, is in the natural order of things the corps whose desires and needs are attended to last of all.

So far as neurological surgery was concerned, the main features of our program were as follows: To place as an urgent measure one or more surgical teams under an operator with some degree of neurological experience in each mobile or evacuation hospital in order to cover so far as possible the early treatment of the cranio-cerebral injuries; to arrange in the large hospital centres of the intermediate zone for a group of surgeons and neurologists to care for the cases arriving at the area which were to be congregated in one hospital so far as conditions permitted; to establish further in the rear, on the French system, two or three centres, each under a neurological director, where still more elaborate arrangements for the study and surgical care of these special cases with proper laboratory facilities could be had. Under this plan, which had the advantage over the British and French systems of more or less unified control of the wounded in their progress from the forward hospitals to the base, not only could supervision be had of the case throughout, but the situation at the main centre would be most favorable for studies contributory to our knowledge.

By the eleventh of November this program was so far under way that neuro-surgical teams were not only established in the more important and active evacuation hospitals but a special forward hospital for head cases had been in operation during the latter part of the Argonne offensive. The second part of the plan had been very imperfectly developed through lack of trained officers, though in some of the more important hospital groups it was in operation. A start, moreover, had been made to establish a real neurological centre under the charge of Lieut.-Colonel McCarthy at Vichy, after the arrival in France of Base Hospital 115.

It was our earnest hope that this institution might be transported intact to this country and might serve as a centre where neurologists, psy-

chiatrists, neuro-surgeons, and the orthopedists with experience and interest in problems relating to the peripheral nerve injuries might collaborate, and which might represent the nucleus of a permanent National Institute of Neurology. Could this have been accomplished—and I believe that something of the sort may still be possible—neurology would have gained something from the war which would prove to be of enduring benefit not only to neurology, but to general medicine.

JAMES EWING MEARS, M.D., LL.D.

(A PERSONAL RECOLLECTION.)

A PROMINENT surgeon "of the old school"—if such a term may now be used of the early Listerian era—has recently passed away. Dr. Mears, who at the time of his death in May last was in his eighty-first year, was born in Indianapolis and educated at Trinity College, Hartford. He entered the Jefferson Medical School in the autumn of 1863. Coming as he did to Philadelphia with favorable credentials to the great exponent of surgery, Professor S. D. Gross, he began what was destined to be his life-long career in that city. It was on such an occasion that the present writer and Dr. Mears first met, enjoying an introduction from our mutual patron, and thus an acquaintance, begun under such favorable auspices, ripened into an enduring friendship.

The highwater mark of the Civil War had been reached when the battle of Gettysburg had been fought, a few months before this date, and although the course of medical study of those days was a pathetically short one, a medical student of the "class" of that year had but little opportunity to do his share of war work before the return of peace. Philadelphia was, however, not far from the actual seat of hostilities, and many hospitals in and around the city gave opportunity for surgical training which was of great educational importance to the future surgeon. "Old Man Gross," as the students of those days were wont affectionately to call him, had in full measure the ability to inspire his students with enthusiasm, and those whom he selected as marks for special notice were fortunate indeed in the favorable conditions under which they began to practice their profession.

It is not therefore surprising that the young student selected surgery as his special calling and became a recognized member of the group more intimately associated with the great master, among whom may be mentioned Maury and the younger Gross, both men of great promise.

While a student in Philadelphia, during the winter of 1863-4, the present writer had an opportunity of seeing much of the society of his fellow student, occupying with him a suite of rooms in a well-known hostelry on Broad street. Mears at that time, although but a few years the older of the two, seemed much more mature. He had come from St. Louis, where he had been living at the outbreak of the war, and gave the impression of a man of the Southern type of physique, albeit he had done loyal Union work in that city at the commencement of hostilities. The full beard and abundant growth of hair, which fashion permitted in those days, fitted in well with a serious demeanor to give the young man an air of maturity beyond his years. Thus, though a certain element of reserve existed between chums, brought together from far distant sections of the country, a common enthusiasm for a chosen calling brought the two young men into a sympathetic understanding of one another and so it came about that this brief association of one college term brought with it a life-long intimacy.

The all-absorbing activities of the immediately following years did not leave time or opportunity for much mutual intercourse, but summer vacations gave Dr. Mears an opportunity to visit New England and to get an insight into some of its medical institutions. This was a period when Harvard was taking a leading part in the new departure of medical education and Mears was thus enabled to acquire a familiarity with two of the prominent seats of medical learning in this country and thus keep actively in touch with the spirit of the times.

Dr. Mears' professional life in Philadelphia can better be described by his colleagues of that city; suffice it to say here that he rose steadily in his profession and became associated with the work of many of the leading surgeons of the day, until finally he took his own place as a surgeon and a teacher of note.

His work on the mouth and jaws should be mentioned as among his most notable surgical achievements, and also a book on Practical Sur-

gery, published in 1878 and 1885. As a teacher he gained much renown as a drill master for aspirants for the naval medical service and doubtless many a naval, and probably, also, army, surgeon, who has done duty in the great war, has reason to be thankful for the rigorous ordeal to which he was obliged to submit to enable him to pass his examinations. It was said that Mears never had a pupil of his fail to pass, consequently he was much sought after, and the number of those who profited by the instruction and discipline which he exacted must have been sufficiently large to exert a perceptible influence upon the morale of the service.

Dr. Mears was a charter member of the American Surgical Association and had much to do with its organization and early policies; and the culminating event of his surgical career may be said to have been reached when, in later years (1893), he was elected president of the Association.

Dr. Mears never married and so when his time for retirement from practice came he was free to wander about and to enjoy all the rights and privileges of an American tourist of professional standing. Curiously enough, he began this phase of his career by becoming a student once more and taking part in one of Harvard's summer courses. An article entitled "From the Rostrum to the Benches" pleasingly portrays this experience.

It would be difficult to follow Dr. Mears in all of his subsequent travels, which covered many parts of the world, including South America and India. There stood out, however, one characteristic feature which manifested itself on all occasions,—an ability to identify himself with the interests of any locality that he happened to visit. Many newspaper accounts received by the present writer enabled one to follow his course of travel and to obtain valuable information of the scientific activities of the regions visited. It was the quality of making friends with all classes in foreign lands which enabled the traveler to gain much profit as well as pleasure from his wanderings. In later years it was Mears' custom to spend a portion of each summer in or near Boston and, needless to say, it was during this period that his professional acquaintance in that city was greatly enlarged. He was an honored guest on many an occasion, whether it be an inauguration of a college president or one of the numerous gatherings of medical alumni

He took great interest in younger men and inasmuch as fate had ordained that he should be childless, he conceived the idea of acquiring an "academic son," and thus it came about that he established a scholarship in Trinity College, Hartford.

The plan to have a "medical son" in the Harvard Medical School was put in operation many years ago and it was his wish to have the recipient enjoy the benefit of the gift from the time of entrance until final graduation. The academic father was thus able to interest himself in the fortunes of deserving students through a critical period of their careers. But he did not find the task a simple one and many were the complaints that the good doctor's friends were expected to listen to in regard to the shortcomings of his protégé. But the numerous problems with which he had to contend on his annual visit to Harvard seemed to take the place of the responsibilities which had been laid aside on his retirement from practice. It proved an admirable means of keeping an old man in close touch with the progress of science and the changing currents of medical education and student life.

Mears wielded a facile pen and few of the annual gatherings of the American Surgical Association were allowed to pass by without some contribution, at times reminiscent in character, on other occasions dealing with some quite up-to-date problem. For several years he had taken great interest in the new study of eugenics and had prepared, from time to time, papers on the various phases of this subject. These he embodied in a publication entitled "Problems in Race Betterment," and published by him in 1910.

As early as 1894 Dr. Mears had advocated the ligature of the spermatic cord as a substitute operation for castration in the treatment of hypertrophy of the prostate gland: a few years later he was led to suggest this operation in the treatment of defectives in order to produce a state of asexualization. Since then he has also advocated an analogous operation in the female, consisting of ligature of the fallopian tube. He prefers this form of operation to the actual removal of the organs, for, as he says,[1] "that the testis and ovary produce an internal secretion which is necessary to the normal functioning of the body tissues has been demonstrated." Ligature of the cord he prefers to vasectomy as to controlling to some extent the activity of

the testis without actually destroying its function as an organ of nutrition. Surgical procedures instituted for the prevention of procreation in suitable cases, he claims, "should not be regarded as a method of punishment but as a remedial measure, the sole object of which are the betterment of the human race through the arrest of the continual flowing stream of degeneracy and the mental, moral, and physical improvement of defective subjects."

Enough has been said to show that Dr. Mears was keenly interested to the last in medical science and medical progress, and that he was evidently anxious to do his bit as a public-spirited member of our profession is plainly shown by many generous gifts to medicine. Among several bequests to Philadelphia medical institutions may be mentioned one for the foundation of a scholarship at the Jefferson Medical School, his Alma Mater. In addition to the scholarships already referred to at Harvard, a gift of $10,000 to the Harvard Cancer Commission may be mentioned. Harvard College becomes also the residuary legatee to found "Courses of Instruction in Eugenics" and the wish is expressed that the subject shall be taught in all of its branches, notably that branch relating to the treatment of the defective and criminal classes by surgical procedure. Believing this to be a subject "which concerns most importantly the welfare of the human race," he plans to leave a generous endowment for the object in view.

It is evident that Dr. Mears hoped that the time was not remote when the examples of the states of Indiana, California, and Connecticut should be followed by many sister states. Few still fail to agree with our friend on the importance of the new science of eugenics and all will doubtless welcome a gift for research, in the light of constantly increasing knowledge of physiological processes and social problems, from new points of view which inevitably will present themselves from time to time.

It is pleasant to feel that the profession of medicine has still the power to inspire its devotees with altruistic schemes as a mark of its vigor and constantly increasing importance in bringing about the well-being of mankind.

J. C. W.

REFERENCES.

1 "The Problem of Race Betterment," 1910, p. 42.

A FEW INDUSTRIAL MEDICAL PROBLEMS AND TENDENCIES.

BY HERMAN W. MARSHALL, M.D., BOSTON.

MEDICAL treatments of industrial accident compensation cases, as is well known, are beset with difficulties not encountered in care of private patients suffering with similar injuries; and there exists still considerable misunderstanding among the medical profession as well as dissatisfaction frequently in dealings with insurance companies.

Insurance men on their part are not uniformly pleased with medical services rendered by practitioners to disabled workers whose expenses their companies are expected to pay.

There are at least these two sides always in each example of this important group of cases besides a number of other phases; so that the more perfectly physicians understand business points of view or insurance men understand the needs of their doctors the better will become the situation for all concerned, including the injured persons. For these reasons reviews of the facts made in as fair minded judicial manner as possible are desirable at intervals to throw additional light on medical phases, attitudes of patients, business aspects, and certain legal features.

Private practice of medicine is based on a comparatively simple relationship between two individuals involving confidence of the patient in each instance; and on the other hand, involving the skill, judgment in fixing medical fees, honesty, friendly interest and personality of the physician; the most important factors in successful private practice presumably being the honest friendly interest and personality of the doctor.

Industrial practice is based on these same elements besides others, but different values are set necessarily on them because of the commercial nature of industrial practice. Confidence of any group of careful business men depends still on a physician's honesty, interest, and personality, but his skill and fees are scrutinized and compared with the skill and fees of many other physicians with far greater care than is done by the average private patient.

The medical profession has to reconcile itself to these facts if there is to be a continuance of industrial medicine or extensions as proposed into health insurance for the masses of people. Progress along these lines means a gradual partial loss of the present independence of medi-

cal practitioners to an unknown extent; and although some specialists and family physicians may continue as they have been doing in the past, yet they are liable to have not quite as many patients who come to them under old conditions, nor the range and freedom which would be possible without industrial medical developments.

Some medical men may have to abandon private practice as their sole means of livelihood and enter the industrial field to some extent, whether they desire to or not; but it is fair to recognize, however, that there may be new benefits for doctors, although these are unappreciated at the present time, which may be evolved from changes now going on.

It is conceivable that the influence of insurance methods managed on broad lines may be salutary in the long run to reputable medical practice, as well as to the public, through forming a natural check to undesirable tendencies toward the charging of excessive fees for services of not especially great value; and in keeping up the standards of all practitioners to higher levels of efficiency.

On the other hand, it is likewise conceivable that business methods, unless properly regulated with precision, may be abused easily by unscrupulous individuals or companies, so that the medical profession may be compelled to make more efficiently organized opposition to harmful tendencies.

The question can be asked properly now whether or not insurance companies are the robbers which some physicians and patients would have us believe. It is fairly certain that large sums of money are not being made generally by them as is shown by the fact that a very considerable number of companies have dropped their industrial accident compensation branches on account of losses incurred instead of earnings gained; and so the position of any fair-minded insurance adjuster is worthy of careful consideration by the medical profession.

He is trying to give good service to those insured in his company and to the injured men; also he is obliged to keep medical fees and other expenses down within certain limits. His aim along medical lines is to get maximum medical service for a minimum price.

Some companies favor extremely low doctors' fees and are willing to shift rapidly from physician to physician, accepting lowest bidders, thus making such medical work unprofitable and unsatisfactory from the point of view of all concerned.

Other companies encourage reasonable fees and are loyal to their doctors, and there is a growing belief in some quarters that most service for the least price can be gained in the long run through careful selection and adherence to physicians of sound judgment and honesty, to those who are not ready to cut the rates of fellow practitioners and who also have interests of the insurance company equally well in mind.

The circumstance that highest priced specialists are not desired by insurance men can be explained by the fact that results obtained have not been commensurate with the prices paid.

The present tendency, therefore, of best industrial practice seems to be toward trimming off highest and lowest fees.

An insurance adjuster is confronted with the difficulty that some patients and some doctors attempt to deal unfairly with insurance companies. Legal advisers occasionally suggest ways to injured workmen whereby they can get excessive amounts of compensation, and doctors have been observed to pad their bills with as many visits as they can make and collect payments on. Adjusters make mistakes also, and it has to be admitted there are possibilities for very complicated situations very often.

In view of these existing difficulties it seems to some persons that extensions into health insurance can be deferred profitably and entered into cautiously in Massachusetts later after greater familiarity and success have been attained in handling difficulties of industrial medical experiments already going on.

The medical practitioner's standpoint in industrial practice, especially in the group of protracted disabilities with which the writer has had some experience as an orthopedic surgeon, may be either very satisfactory or discouragingly unsatisfactory.

Numerous injured workers who are anxious to return to their occupations as soon as possible, and many with large families dependent on them without money to pay for courses of medical supervision or for apparatus, will cooperate fully with the attending physician. The latter can get better results usually in long continued cases than is possible at large clinics at hospitals where less time necessarily can be spent on each individual, and where shifting of hospital doctors or division of responsibility

among groups of physicians whose ideas perhaps do not harmonize closely tend to lessen degrees of success attained.

It becomes a pleasure to a physician to send these many useful members of the community back to industry again quickly and to save unnecessary expense for all. Medical work of this kind, in the writer's opinion, can be made of great value to medical practice in general if it helps to balance extreme medical fads and inefficiencies which tend to evolve at times from independent private practice.

An exasperating feature which is encountered rather commonly, however, arises from lack of coöperation of the injured in their treatments. Perhaps they agree at the outset to do their part, but at the end, after the doctor has given them very careful attention, some decide then to get as much money from the insurance company as they can, regardless of the justice of their claims. In such instances physicians' efforts and insurance companies' money are largely wasted: and it becomes obvious that industrial practice requires more than medical skill for most successful results. Each industrial case ought to be subjected to thorough preliminary investigation to determine the status of the patient and his future intentions and the likelihood of fulfillment of his part of the program.

An argument advanced by most injured individuals when they are questioned is interesting and convincing at first, namely, that they would prefer to be back at their usual occupations rather than drawing compensation; because the latter payments are not as great as wages they received previously.

Nevertheless, very often it is not true that they are anxious to return to industry promptly. At times, in addition to accident compensation payments some men receive disability benefits from fraternal lodges and other sources which make a disabled condition more lucrative for a limited time for them than active labor. Others are injured at the close of the season for work in their special occupations, when a period of loafing naturally would be ahead of them. These injured persons frequently try to tide over the time until the next period of activity in their particular lines by attempting to remain incapacitated during the whole interval irrespective of the injuries received.

Some try to combine a vacation with an alleged disability; and there is a very considerable number who are naturally lazy and who are contented to stay inactive as long as they receive money enough barely to exist. When members of this last mentioned class receive definite injuries, like fractures of the arms or legs, surprisingly long periods are alleged by them to be necessary for recovery; and it is only by following such cases closely, and repeatedly discrediting the numerous excuses that are continually raised, that finally they are forced back to work.

The poorer the wages received the more inducement there is to loaf, and particularly is this so because feeble ambition is quite commonly associated with meagre pay. An injury to some such men besides disabling them physically annihilates their inclination to struggle on against new temporarily harder conditions, and there seems to be no way of avoiding some abuses in this direction.

The consideration of exact degrees of benefit which are to be derived from any proposed medical treatment is a matter of importance from a business standpoint. Some improvements in patients' conditions without return to wage-earning capacities are negligible from an insurance company's viewpoint; whereas in private practice very slight grades of betterment are gratefully paid for by patients occasionally in extremely liberal manner.

Difficulties frequently arise naturally between the various companies and general practitioners on this score; and whether complete responsibility can be assumed profitably and safely or not by insurance companies for treatments of the injured from the dates of the accidents to their return to industry is still an unsettled question.

In the present stage of progress in Massachusetts there frequently arise situations in which doctors have treated industrial cases long and faithfully according to the best of their ability, and then have met with objections when their bills have been rendered. These bills perhaps have been trimmed down in advance to pass the expected scrutiny of an insurance adjuster; and yet even then further reductions are demanded. The amounts involved may be small and this haggling at such times is very distasteful to most medical men.

In fairness, however, it has to be remembered that industrial cases are transacted in

business ways; and that compromises even in trivial affairs are the rule more commonly perhaps in legal adjustments than payments of full amounts for which claims are made. Insurance adjusters are simply following usual customs of settling claims moderately satisfactorily to both parties involved, and these minor bills in the aggregate must be kept down to definite limits by the company. It is as much the duty of physicians dealing with industrial cases to learn the usual practices of adjusters and govern themselves accordingly, as it is for adjusters to familiarize themselves with peculiarities of medical practice.

The most satisfactory way of dealing harmoniously with insurance agents is for attending physicians to ascertain in advance the views of the particular company concerning the patient before attempting treatment of any sort.

An interesting phase of medical practice which is being brought into prominence now by industrial considerations is the matter of maximum *versus* minimum amounts of medical care. Private practitioners range themselves against industrial physicians over this problem; at least, each is dealing with extreme opposite aspects of the situation and yet both may be equally honestly striving to give satisfactory treatment to patients. Private practitioners declare, perhaps, that industrial cases are neglected, and undoubtedly this accusation is a true one occasionally; while industrial physicians are of the opinion that many patients now receive a lot of unnecessary attention when treated by family practitioners. Between these two points of view, in time it seems probable that the real truth will become clearly defined and industrial medicine presumably will be credited finally with bringing out this important negative side of medical advancement which otherwise might remain neglected.

Determinations of minimum amounts of care which will yield good results do not signify necessarily that medical activity will be minimized, for, on the contrary, medical endeavors may be directed along new and more profitable channels at increased speed possibly and with lessened waste of energy. Industrial medicine may lead to more clearly cut differentiations between the art of medical practice and scientific medical attainment; for certainly there are undeniable differences between a person becoming a very skillful practitioner or being a living encyclopedia of medical knowledge, although these two sides are blended in variable proportions in every doctor.

Even the tremendous importance of wholesale prevention and lessening of industrial accidents by safety devices or improved working conditions cannot obscure the desirability of increasing the efficiency of the individual physician in his care of injured individuals. The maintenance of best individual balance requires new decisions continually of values for special and general medical knowledge; wise selections from broad views and narrow precise ideas, as well as numberless estimations of theoretical, practical, social, economical, and other elements which determine any individual's delicacy of poise and efficiency. And upon the efficiency of the individual unit depends the efficiency of the whole system of medical practice.

Perhaps the greatest need of all at the present time in industrial medicine is increasing honesty and impartial fairness in transactions by all concerned.

Insurance adjusters claim they are now a pretty decent set of persons and that they handle their difficulties about as fairly and as well as can be expected. Doctors, patients, legal advisers who are involved, all claim likewise their intentions of square dealing and of looking only after their own rights; yet as the acuteness and pressure of modern industrial situations increase there must be improved facilities for adjusting differences, or increasing honesty and fairness, or both improvements for best results.

The Massachusetts Industrial Accident Board, with its medical adviser, has the power to direct future progress along lines which are favorable or unfavorable, and one has simply to know of the careful impartial service which is being rendered now to feel certain there will be diminutions of the difficulties in the future which naturally surround the many complicated situations encountered.

It should be apparent to everyone also that there is great need of keeping up the highest grade of efficiency in this Board in the present troublous times; and that they should be given as free an opportunity as is possible to act for the best interests of all concerned impartially, carefully, and expeditiously in the future.

Personally the writer has found insurance adjusters ready to extend periods of payments willingly when good reasons exist, and patients and their legal advisers ready to accept his opinions so often, that it is impossible to doubt

that an exceedingly simple straightforward policy of fair dealing will suffice still to give satisfaction even under the most complicated circumstances. And as familiarity with industrial problems increases and knowledge becomes more widely spread, it will appear that safeguarding of rights will as frequently include those of insurance companies as those of patients and physicians. Progress is being made rapidly in right directions at present, but it behooves the medical profession to see to it that harmful tendencies which may unconsciously develop from lack of medical attention do not prosper.

Best development demands increasing interest of the medical profession as well as of business interests.

EPILEPSY IN SCHOOL CHILDREN.

BY EDWARD A. TRACY, M.D., BOSTON.

THIS paper briefly reports a survey of epilepsy made in three Boston school districts, comprising 2786 pupils in grades from the kindergarten to the eighth. It is hoped that a consideration of the benefits of this survey may aid in providing for its extension, to include all of the school districts. Shanahan[1] has made the statement that "Conservatively speaking, every two or three per thousand of the average population are epileptic." Among the 2786 school children examined there were found nine epilepties. This gives a proportion of 3.2+ per thousand school children. Brief histories of the nine cases of epilepsy found follow:

CASE 1. May 1, 1916. H. D. Female. Aged 14 years. Had severe convulsions in infancy for a period of two weeks. Measles at 6 years. At 7 years, her mother states that at times she would suddenly clasp together her hands, and at times would become "deadly white" and faint. At 8 years convulsions occurred. Attacks increased in severity till from her tenth year she has averaged sixteen attacks of *grand mal* per month. Treatment ineffectual. Had to give up school. Cared for at home, her mother refusing institutional care.

CASE 2. Nov. 13, 1916. T. H. Female. Aged 13 years. Had measles at 2 years, pneumonia and pleurisy at 11 years. At 8 years had a fall from a tilt, striking on her head and becoming unconscious for three hours. At 12 years had attacks of sudden dizziness and of sudden weakness for a period; these recurred in July, 1916, and from then on she suffered from fainting spells, sometimes four in a week. The fainting spells had been attribnted to heart disease. Several examinations showed the heart to be normal. Marked pallor found present. A patch of gray hair is noted on the right frontal region. Patient is chronically constipated. This case recovered under treatment which lasted a year. The subjective symptoms of dizziness and headache quickly improved, and the objective signs of irritability and fainting spells ceased after three months. No recurrence after a year and a half without treatment. She graduated from the grammar school, and has worked in a department store the past year.

CASE 3. February 14, 1917. J. O'B. Male. Aged 12 years. Pneumonia at 1 year. Measles, whooping cough and mumps at 8 years. His history gives fainting at sight of blood since eighth year. Is very nervous. Bárány's sign, conjugate deviation of the eyes, constantly present. Abnormal sympathetic reactions and chronic vasoconstriction spots were present. Under treatment the nervousness ceased, and on every occasion (five) in which chance meeting with the sight of blood has occurred, there has been no feeling of weakness nor fainting. Without medicine for a year and no recurrence.

CASE 4. October 30, 1917. A. J. Male. Aged 10 years. Had bronchitis at six months, whooping cough at 2 years, and measles at 7 years of age. Maternal aunt is an epileptic. In June, 1917, commenced to have dizzy and fainting spells. He would become "deadly white" and fall. Twice he had two attacks on the same day. He suffered so frequently from dizzy spells that his mother ceased sending him on errands for fear something might happen to him. Examination showed chronic vasoconstriction spots and abnormal sympathetic reflexes. The boy's mother was informed of the diagnosis—incipient idiopathic epilepsy. Under treatment his dizziness, pettishness, and attacks of fainting spells ceased. After six months the mother concluded there was nothing the matter with the boy and stopped medication. After a few months without medication, the dizziness and fainting attacks recurred, and again yielded

to treatment. Again the mother neglected to continue medication, and on May 25, 1919, witnessed her son's first convulsion. This has awakened in the mother a realization of her neglect to follow medical advice and it is hoped she will henceforth be more persistent in following it. Incidentally it confirmed the accuracy of the diagnosis made nineteen months before the first attack of convulsions.

Case 5. November 15, 1917. F. Z. Male. Aged 12 years. Had measles at 5 years and diphtheria at 6 years. First attack of convulsions in May, 1917. Had six attacks of convulsions from that time to Nov. 15, 1917. The mother states that after the first attack, the boy came to her at different times complaining of strange sensations. The boy took medicine faithfully for six months, and the dizzy and strange sensations and the convulsions ceased. The mother then, thinking her son cured, omitted medication. After about two months without medication, convulsions recurred. Under further treatment, quite negligently carried out, the attacks are infrequent and not severe.

Case 6. March 8, 1918. M. G. Female. Aged 10 years. Had whooping cough at 8 years. Is an orphan, living with her maternal grandmother. The grandmother states that she herself had convulsions from her sixteenth to her twenty-fourth year. Patient has chronic rhinitis. First attack of convulsions December 24, 1917. Is very nervous and irritable. Suffers from dizzy headaches and frequent fainting spells—had four in one day once, and two in one day at another time. Has characteristic vasomotor reflexes and chronic vasoconstriction spots found in epilepsy.[2] Under treatment there is a marked improvement in subjective symptoms and in irritability, and in the number of attacks. Because of the home environment, the grandmother was advised to send the child to Monson State Hospital. This she absolutely refused to do while the grandfather is alive.

Case 7. February 7, 1919. A. C. Female. Aged 13 years. Had diphtheria at 8 years and was in the hospital then for four months. Seen in school after a fainting attack. Her history gives several such fainting spells. The heart is normal. Several examinations showed chronic vasoconstriction spots and epileptic vasomotor reactions. Her mother was advised of the diagnosis—incipient epilepsy. She promised to send her daughter to the Clinic for Nervous and Epileptic Children at the Forsyth Dental Infirmary for treatment.

Case 8. April 5, 1919. C. F. Female. Aged 11 years. Had whooping cough when a baby, and measles at 2 years. Fell out of a two-story window when between 2 and 3 years of age. The year following there came on attacks of *petit mal*. Has had four years of institutional care (at Monson). Has many "absences," lasting a moment, every day. The writer witnessed three of these attacks within a period of fifteen minutes. In them the child stared, was unconscious. On another occasion an attack was witnessed, while patient was sitting. It lasted twenty-five seconds, the patient swaying slightly while unconscious. Immediately after the attack, in answer to the question, "Are you better?" she said, "Just a little excited, that's all." Under treatment for a short time, the mother reports a marked lessening in the number of attacks.

Case 9. April 2, 1919. M. F. Female. Aged 9 years. A sister of Case 8. She had whooping cough when a baby. Has attacks of *petit mal* like her sister's, but not so numerous. Has had four years of institutional treatment (Monson). Now attending school, in first grade, and attacks are lessened in number under treatment.

SUMMARY.

Amongst 2,786 school children there were found nine epilepties. Four of these were major and five were minor cases.

The work required to make this survey was not inconsiderable, but the gleanings in this field have made the effort well worth while. The large number of facts garnered, facts of observation, of neurological testings, and of medication, will furnish, in part, when collated, the basis for an article on the diagnosis and treatment of idiopathic epilepsy in its incipiency.

To the Director of Medical Inspection of Boston Schools, Dr. William H. Devine, the writer desires to express his gratitude for kindly encouragement and counsel, and for his practical efforts for the betterment of epileptic school children.

REFERENCES.

[1] Sharahan, William T.: Interstate Medical Journal, 1917, Vol. xxiv, p. 1122.

[2] See "Idiopathic Epilepsy a Sympathicopathy" in Boston Medical and Surgical Journal, 1918, Vol. clxxviii, Nos. 23, 24, 25, and 26; and "Chronic Vasoconstriction Spots and their Significance," in same publication, 1919, Vol. clxxx, No. 1.

Society Reports.

MASSACHUSETTS ASSOCIATION OF BOARDS OF HEALTH.

THE regular quarterly meeting of the Massachusetts Association of Boards of Health was held at Atlantic House, Nantasket, Mass. Dinner was served at 12.45 P.M., after which the business of the meeting was taken up. The following report of the special committee on tuberculosis was read by Dr. Curtis. The report was discussed by members and finally accepted, although no recommendations were adopted.

WHEN DOES A PERSON BECOME A CASE OF TUBERCULOSIS FROM THE POINT OF VIEW OF THE BOARD OF HEALTH AND WHEN DOES HE CEASE TO BE SUCH?

Your committee has thought it best to present certain recommendations to the Association with little or no comment, leaving it to the Association to discuss the question and decide whether to accept or reject them.

Although it is not so stated, your committee has decided that the question refers to tuberculosis of the respiratory organs alone and has based its report upon that decision.

The recommendations are based largely upon the papers read at the meeting of the Association held in July, 1918, and the discussion which followed, but your committee has also consulted such literature bearing upon the subject as it could find and asked the opinion of physicians in active practice.

There is no question as to the status of the so-called open cases in whose sputum tubercle bacilli have been demonstrated; these must be reported to the board of health at once; but there is a fair difference of opinion in regard to the so-called closed cases, which show the physical signs of tuberculosis but in whose sputum tubercle bacilli have never been demonstrated.

These cases are not a danger to the public, within meaning of the statute, as long as tubercle bacilli are not present in the sputum, but they may become dangerous at any time. If these persons do not have bacilli in the sputum, reporting them to the board of health may be a hardship to them and failure to report may, under certain conditions, cause danger to the public.

Your committee recommends that only persons falling into the following classes be reported to the local board of health, as persons infected with tuberculosis within the meaning of the statute.

Class A. Persons having the ordinary physical signs of active tubercular disease of the respiratory organs, in whose sputum the presence of tubercle bacilli has been demonstrated.

Class B. Persons having the ordinary physical signs of active tubercular disease of the respiratory organs, in whose sputum the presence of tubercle bacilli has not been demonstrated, but whose physician believes that it would be better for them to be under the supervision of the local board of health.

All persons who show physical signs of active tubercular disease of the respiratory organs in whose sputum the presence of tubercle bacilli has not been demonstrated, whether put in Class B or not, should have periodic examinations made either by the family physician or at a dispensary. They should *not* be told that they have nothing to worry about and to go out and forget it.

Persons in Class B should have periodic examinations made, either by the family physician or at a dispensary.

Persons who have once been reported may have their names removed from the books as active cases when the family physician or the dispensary reports in writing to the board of health that they are "cured."

A "cured" patient is one who has been for at least two years without any increase of the physical signs and has shown no bacilli for the same period. Physical examinations must be made at least four times a year, either by the family physician or at a dispensary, and the bacteriological examinations at similar intervals at a laboratory approved by the local board of health.

Persons who have once been reported, may have their names removed from the books, when the board of health is convinced from its own observation of the case, that such removal will be without danger to the public or the patient himself.

Your committee believes that the above recommendations can be carried out without any change in the present laws and will solve the question of the closed case with a proper regard

to the protection of the public health and to the rights of the careful consumptive.

Signed, W. L. Young, M.D.,
Francis Geo. Curtis, M.D.,
Fred J. Ripley, M.D.

The following resolutions were passed on the death of 1st Vice-President Lewis M. Palmer, M.D.:

The Massachusetts Associations of Boards of Health, through its Committee, hereby expresses profound regret in the sudden and untimely death of Dr. Lewis M. Palmer of Framingham, a long-time useful, faithful, honored, and beloved physician, officer and member of this Association. His genial personality, quiet, gracious sympathy, wise, experienced counsel, courageous attitude for right and clean living, with his great interest in the work of this Association, makes his loss most keenly felt and deeply regretted. Be it therefore

Resolved, That we convey to the family our sympathy, appreciation, sorrow and great sense of loss. Be it also

Resolved, That these resolutions be spread upon the records of this Association, and that a copy be sent to the bereaved family, and that they be published in the Boston Medical and Surgical Journal.

Signed, A. S. MacKnight,
C. W. Milliken,
W. H. Allen,
Committee.

REPORT OF THE HARVARD INFANTILE PARALYSIS COMMISSION.

By Robert W. Lovett, M.D., Boston.

The Harvard Infantile Paralysis Commission was appointed in September, 1916, by the Corporation of the University and has continued in existence since that time with its personnel unchanged. The members of the Commission are Professor Milton J. Rosenau, Assistant Professor Francis W. Peabody, and the writer as Chairman, with Mr. Roger Pierce as Secretary.

It seems fitting that after three years of activity, some account of its work should be presented to the medical profession and to the public. To the former, because we have had throughout its support and coöperation, and to the latter, because its generosity in furnishing financial support has enabled us to continue the work for the last two years.

The Commission was established in the first instance for three purposes:

First, to act as the agent of the Massachusetts State Department of Health in the care of children paralyzed in 1916.

Second, to aid in diagnosis and early treatment of acute cases.

Third, to study the cause and transmission of the disease.

These three divisions of its work were pursued in the first year, and publications resulted as shown in the footnote.*

In 1917 and 1918 new cases were fortunately few. The war involved the United States and as three members of the Commission were in service, the work of the Commission was much handicapped and only the therapeutic part was continued. This was possible because that department was sufficiently well organized to go on under adverse conditions, and from the beginning of the work that part of the Commission's work has been active continuously.

Even without the war the treatment part of the enterprise would have dominated the others, because in the absence of an epidemic, the importance of treatment would naturally become the dominant of the three factors.

Clinics have been held at The Children's Hospital Out-Patient Department, Tuesday, Thursday, and Saturday mornings, to which paralyzed children have been brought for treatment. Up to October 1, 1919, there have been 423 clinics, 713 patients have been treated and a total of 7871 treatments have been given.

In addition to this the staff of the Commission's Clinic has conducted clinics at various parts of the State. Up to October 1, 1919, there have been 39 State clinics, 803 patients have been treated and a total of 1556 treatments have been given. These clinics have been held in the following cities:

Malden	1
Beverly, Lawrence, Lynn, Melrose, Quincy, Newburyport	2

* "The Harvard Infantile Paralysis Commission and Its Work in Massachusetts," by Robert W. Lovett, M.D., Boston, Mass., published in the Boston Medical and Surgical Journal, January 11, 1917, and the *Harvard Graduate Magazine*.
"A Report of the Harvard Infantile Paralysis Commission on the Diagnosis and Treatment of Acute Cases of the Disease during 1916," by Francis W. Peabody, M.D., Boston, Mass., published in the Boston Medical and Surgical Journal, May 3, 1917.

Greenfield } Worcester }	3
Lowell } North Adams }	4
Haverhill	5
Springfield	7
TOTAL	39

Total number of patients treated at both the Children's Hospital and State Clinics is 1516, and the total number of treatments given is 9427, from October 1, 1916, to October 1, 1919.

Field workers have been provided for various parts of the State, to carry out treatments at the homes of patients, and nurses from the Instructive District Nursing Association of Boston have been provided to carry on the same sort of work in Boston and Greater Boston.

For the year 1918 the Harvard Infantile Paralysis Commission had four field workers. The total number of visits made to homes by these workers was 4788. The town of Brookline paid for another field worker, under supervision of the Commission. This worker in 1918 made 393 visits. Haverhill, also, paid for three workers. The average number of visits made weekly by these three workers was 32. The number of patients being visited by Commission Field Workers at present is 565 and the number of patients being visited by the District Nurses at present is 163, a total of 728 patients being visited at their homes.

Beginning October, 1918, field workers have held small treatment clinics in Springfield, Northampton, Lowell, and North Adams. In Springfield two treatment clinics have been held every month, with an average attendance of 22 out of 25 patients notified. In Northampton one treatment clinic has been held every five weeks, with an average attendance of 11 out of 15 patients notified. In Lowell one treatment clinic has been held every five weeks, with an average attendance of 25 out of 35 patients notified. In North Adams one treatment clinic has been held every five weeks, with an average attendance of seven out of 20 patients notified.

Cases of infantile paralysis throughout the State, with the exception of Fall River, New Bedford, Leominster, Fitchburg, Chicopee, Holyoke, and Pittsfield, are being cared for by the Harvard Infantile Paralysis Commission. Cases are not handled by the Commission in the above named cities because there are opportunities offered in these cities for after-treatment for poliomyelitis. Occasionally patients come to the Harvard Infantile Paralysis Commission for treatment from the other New England States, New York, Pennsylvania, Southern States, and Canada.

The following is a copy of reports sent to the Harvard Infantile Paralysis Commission by the Instructive District Nursing Association of Boston:

From the time of the epidemic in 1916 until December 1, 1917, the following work has been done in and about Boston by the District Nursing Association:

140 patients have received treatments from the nurses.
1352 treatments have been done by the nurses since the beginning of the work.
55 average treatments per month have been given at the branch station clinics.
200 average treatments per month have been given in the homes of the patients.

From June 1, 1917, to February, 1919, the following report is submitted by the District Nursing Association:

177 infantile paralysis patients were given massage and muscle training by our nurses in connection with treatment given at The Children's Hospital.
36 children were entirely unable to walk—the others had a good deal of paralysis; some of legs; others, arms; and others, face or abdomen. Of the 36 who were unable to walk, 33 are now able to do so.
Of the 177 children as a whole:
53 are now practically cured.
95 are very much improved.

The Harvard Infantile Paralysis Commission pays a salary of $900 for one worker in the Infantile Paralysis Clinic in the Massachusetts General Hospital. All Commission adult patients seen at State Clinics and all children over twelve years of age are transferred to the Massachusetts General Hospital. When a Massachusetts General Hospital infantile paralysis patient lives in the middle or western part of the State, on request of the surgeon in charge, a Harvard Infantile Paralysis Commission field worker is sent to visit the home to supervise after-treatment.

The following is a copy of a report sent from the Massachusetts General Hospital to the Harvard Infantile Paralysis Commission:

Of the 41 cases transferred or referred from the Harvard Infantile Paralysis Commission to the Massachusetts General Hospital, 35 have reported. The other six are being followed by Social Service.

Under treatment	35 cases
Intensive treatment	20 cases
Observation and direction	15 cases
Operation advised	19 in 17 patients
Operations performed	17 in 15 patients
Braces and apparatus	17 patients

The results from operations have been satisfactory in all the cases, with the exception of two, in whom a further operation will be necessary to correct the deformity.

The response to the exercise treatment has been so promising that the importance of carrying it out in the older and post-operative cases is definitely recognized.

Much of the success of the work of the Commission, and the fact that the clinics,—both hospital and State,—are still so large, is due to the splendid coöperation from the Children's Hospital, the Massachusetts General Hospital, the Massachusetts Society for the Prevention of Cruelty to Children, the State and Local Boards of Health, the Community Nurses, School Nurses, and District Nurse Associations. In temporary and permanent placing of children, the New England Home for Little Wanderers, the Children's Mission, the New England Peabody Home, and Wellesley Home for Convalescent Children, of the Children's Hospital have always generously given their assistance. The Industrial School for Crippled and Deformed Children has solved the school question for a very large number of paralyzed children in or about Boston. The Avon Home of Cambridge has furnished transportation and given financial aid for all patients in their district.

Private individuals deserve mention for their generosity in furnishing, often, Commission patients with motor and attendant services.

Mrs. John Hayes Hammond, for two years, supplied funds to pay expenses of running an ambulance, thereby enabling a large number of patients to come for treatment regularly, who otherwise would have been able to come only occasionally.

Especial mention should be made of the willing coöperation the Commission has received from the American Red Cross throughout the State. Ambulance service, motor service, attendant service and financial aid, whenever requested, have been given generously.

The money for conducting this enterprise has been raised wholly by public subscription, except that in the first year (1917) the State Department of Health contributed $5,000 and in 1918 the Permanent Charities Fund contributed $3,000. A simple statement of the work and an appeal for funds has been issued annually and sufficient funds have been forthcoming to support the work.

The total amount received from the beginning until October, 1919, is as follows:

Received from appeal sent out early in 1917	$15,198.92
Received from appeal sent out in 1918 (1st appeal)	7,373.68
Received from appeal sent out in 1918 (2nd appeal)	12,226.40
Received from appeal sent out in 1919 (1st appeal)	6,436.50
Received from the cities of Haverhill, Lowell, North Adams, and Springfield for State Clinic expenses and from miscellaneous sources	775.67
TOTAL AMOUNT	$42,011.17

The Commission expenditure, per year, is approximately $15,000 and is distributed as follows:

ANNUAL EXPENDITURES.

Surgeon in attendance at all clinics	$1,000.00
Executive Secretary	2,000.00
Director of Physical Therapeutics	800.00
Seven workers	7,800.00
One, clinic worker only,	350.00
Stenographer	900.00
Motor service	600.00
Massachusetts General Hospital	900.00
Clerical work	120.00
Running expenses:	
Laundry	
Carfare	
Telephone	
Printing (charts, stationery, etc.)	
Office supplies	
Clinic supplies	
Parcel post	
Stamps	
Library Bureau	
Approximate total	900.00
TOTAL EXPENDITURES	$15,370.00

JANUARY 1, 1918, TO JANUARY 1, 1919.

Bills paid by Commission to Apparatus Shop for braces for patients amounted to	$2,312.40
The amount received from patients, in payment for apparatus, amounted to	2,080.46
BALANCE UNPAID	$ 231.94

When the Commission started, apparatus was paid for from Commission funds. This was found to be inadvisable as patients abused the apparatus, neglected to wear it, and various parts were lost. Beginning April, 1917, patients were required, as far as possible, to meet the apparatus expense, which has resulted in their taking much better care of it. The above items show how well the latter arrangement has worked out.

The Commission has no overhead expense for rent, clinic facilities being generously contributed by the Children's Hospital. The members of the Commission receive no salary, and

the money contributed by the public is *directly* expended on the care of paralyzed children.

The most important practical question that arises is whether after three years there is enough to be accomplished in such cases to warrant this somewhat elaborate organization and this very considerable expense. The answer is as follows:

First, the following table, prepared in advance of definite scientific data, to be presented later, is part of the answer.

A. Of 126 patients paralyzed at the time of, or since, the 1916 epidemic, under treatment less than six months:
32.5% were practical or complete recoveries
13% remained stationary or grew worse
54% were improved or greatly improved

B. Of 178 patients paralyzed at the time of, or since, the 1916 epidemic, under treatment from six months to one year:
20% were practical or complete recoveries
10% remained stationary or grew worse
70% were improved or greatly improved

C. Of 74 patients paralyzed previous to 1916, under treatment less than six months.
17% were practical or complete recoveries
31% remained stationary or grew worse
51% were improved or greatly improved

D. Of 57 patients paralyzed previous to 1916 under treatment from six months to one year
12% were practical or complete recoveries
30% remained stationary or grew worse
58% were improved or greatly improved

Second: This part of the answer is that the parents are willing to continue to bring their children to the clinics, which proves they are satisfied with the progress of the patient.

Number of treatments given at The Children's Hospital Clinic, according to years, is as follows:

November and December, 1916	418
January through December, 1917	3,835
January through December, 1918	3,453
January through September, 1919	2,758

Number of treatments given at the State Clinics, according to years, is as follows:

	No. of Clinics	Total Attendance	Average Attendance
Jan. through Dec., 1917	27	1023	38
Jan. through Dec., 1918	8	291	36
Jan. through Sept., 1919	4	167	42

Third: The good reputation of the clinic is shown by the fact that many patients, paralyzed previous to 1916, have been brought for treatment.

Fourth: Cases which require operation are becoming many in number because operative measures are not, as a rule, advisable until late in the history of the disease. By having control of the attendance of patients we are able to see that operation is performed when required.

OCTOBER 1, 1916, TO DECEMBER 31, 1918.

Total number of cases that have reached the point of operation	162
Cases operated on previous to admission to clinics	12
Cases admitted to hospital for operation	108
Operations performed in 1917	33
Operations performed in 1918	54
Operations deemed inadvisable after admission to hospital	16
Operations advised, patient waiting for admission to hospital	71
Operations advised but permission not yet granted by parents	23

On these four points it would seem proper to say that the usefulness of a treatment clinic at the end of three years was well established.

From the total number of patients treated, 1516, the following deduction of cases, at present inactive, should be made:

INACTIVE CASES

OCTOBER 1, 1916, TO OCTOBER 1, 1919.

Total number of inactive cases		697
Practically normal		126
Facial paralysis (not regularly treated)		15
Having other treatment		272
Private doctor	77	
Mass. Gen. Hospital	34	
Transferred to other clinics	145	
Sent to institutions	16	
Canton Home	6	
Convent	1	
House of the Good Samaritan	1	
New England Peabody Home	8	
No coöperation in the homes of patients		216
Moved away		68

Scientific data as to the result of treatment have been assembled and arranged but not yet analyzed for publication, because of war conditions. They relate to the following points:

1. Figures and charts showing general results of one year's treatment upon cases paralyzed at the time of, or since, the 1916 epidemic, as compared with cases of longer duration.

2. Analysis, by individual muscle groups, showing per cent. of each which gained, lost, or remained stationary, at the end of six months' and of twelve months' treatment.

3. Figures showing the amount of power present in individual muscle groups, at the first examination and after twelve months' treatment.

4. Comparison—as shown by the spring balance muscle test—of the result of treatment on patients whose general muscle power averaged below 25% of normal at the first examination, and on patients who averaged above 25% of normal on the first examination.

5. Comparison—as shown by the spring balance muscle test—of the per cent. of improvement after twelve months' treatment on patients whose general muscle power averaged below 25% of normal on first examination, and on patients whose general muscle power averaged above 25% of normal on first examination.

The enterprise possesses a certain educational value. The clinics have been visited by doctors from various parts of the country and certain cities and states have adopted the plan in a modified form.

Competent trained women to treat these cases effectively are very hard to find and this clinic has furnished, from its staff, several women to work in other parts of the country. It is hoped to develop this matter of training further for women in the future.

The Commission has considered carefully the figures and facts as presented here and is of the opinion that the enterprise, as it now exists, is performing a useful and desirable function. It is preventing disability in many children and enabling others to improve more than they would otherwise and assisting some to recover completely. To abandon the work at this time would be to deprive 884 paralyzed children of the services of a group of trained workers, which would be disrupted if the work of the Commission stopped, and this group could not be replaced in a long time.

This would be unfortunate, not only in the present situation, but should another epidemic occur, here or elsewhere, such a group of organized trained workers would be most desirable, either to use here or to be used to recruit enterprises of a similar sort in other states. That such epidemics are not unlikely is indicated by the fact that Sweden again has, this past summer, suffered a severe epidemic. In the history of the disease the two great epidemics in Sweden, in 1905 and 1911-12, have been followed within two or three years by extensive epidemics in the United States; the connection between which has never been accounted for.

The Commission is, therefore, desirous of continuing this work for the present, if the public is willing to support it. All the facts and figures at its disposal have been freely stated and it remains for the public to decide whether it cares to continue its former generous support. The funds at present on hand will carry the work on until about January of the coming year and to be effective it must be continued on the present scale, which is as economical and careful as the Commission has been able to make it.

Book Review.

Plastic Surgery of the Face, Head, and Neck. By Joseph C. Beck, M.D., F.A.C.S., and Ira Frank, M.D., F.A.C.S., St. Louis: C. B. Mosby Company. 1919.

Plastic surgery has become increasingly important from the beginning of the war to the present time. The demands which will be made upon surgeons in restoring the mutilated faces of returning soldiers and sailors will be great, and they should be prepared as fully as possible to meet the responsibility which it will be necessary for them to assume. In order to bring before the profession the importance of this work, the authors of "Plastic Surgery of the Face, Head, and Neck" have published this material describing the most important operations about the head and neck which can be performed by men who have had sufficient surgical training. A set of ninety stereoscopic illustrations and seventeen charts, showing the technic of operations, with complete descriptions, have been prepared under the personal supervision of the authors. A manual describing various branches of plastic surgery gives a historical résumé of plastic surgery, and contains articles in palatoplasty, operations for cleft palate; cheiloplasty, operations for deformities of the lips and cheeks; and blepharoplasty, plastic operation on the eyelid. The process of substituting artificial for destroyed organic structure and a new method of using silver wire in bone surgery are explained. The manual contains thirty-three illustrated case reports covering every known phase of plastic surgery. This work sets forth the achievement of plastic surgery up to the present time and promises to be of great value in promoting its further advancement.

THE BOSTON
Medical and Surgical Journal
Established in 1812

An independently owned Journal of Medicine and Surgery published weekly under the direction of the Editors and an Advisory Committee, by the Boston Medical and Surgical Journal Society, Inc.

THURSDAY, NOVEMBER 6, 1919

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An editor will be in the editorial office daily, except Sunday, from twelve to one p.m.

Papers for publication, and all other communications for the Editorial Department, should be addressed to the Editor, 126 Massachusetts Ave., Boston. Notices and other material for the editorial pages must be received not later than noon on the Saturday preceding the date of publication. Orders for reprints must be returned in writing to the printer with the galley proof of papers. The Journal will furnish free to the author, upon his written request, one hundred eight-page reprints without covers, or the equivalent in pages in the case of articles of greater length.

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ERNEST GREGORY, *Manager*
126 Massachusetts Ave., Corner Boylston St., Boston, Massachusetts.

INDUSTRIAL TRAINING AND UNREST.

ANY possible solution to the industrial problems with which the nation is confronted at the present time should be carefully considered. In this connection, the War Department has issued recently a circular letter, by the authority of Colonel Arthur Woods, assistant to the Secretary of War, urging the twenty thousand factory owners and industrial corporations in the country to provide industrial training for workers, with the payment of a living wage during the period of apprenticeship. It has been estimated that the majority of the thousands of American workers who are earnestly trying to do their best are really attaining not over thirty-five per cent. of their possible capacity. This is a situation for which some remedy must be found.

In considering what it means to have six million workers doing what four and one-half million could accomplish if they were properly trained, it must be remembered that not only does it involve payment of wages for one million and one-half unnecessary workers, but it greatly lowers the total output beyond what could be achieved with skilled and intelligent man power. These factors aggravate the high cost of living. With greater production, lower prices would inevitably result; and it has been proved by a number of factory owners that individual productions can be doubled by even a very short period of training. The question of returned soldiers only emphasizes the need of this industrial training. Many of them, entering the service unskilled, have come back with a broader vision, with ambition to increase their earning power and improve their condition. For these men industrial training should be offered immediately; the men, in return, will prove to factory owners that it has been a paying investment.

At the outbreak of the war, when there was a great need for increased productivity, the United States Training Service under the Department of Labor organized industrial training classes which not only produced a greater number of men, but increased the efficiency of the old unskilled workers throughout industrial plants. The nation's level of ability was raised throughout the country: should the twenty thousand industrial corporations in the United States, now that Congress is no longer to make appropriation for continuing this national effort, allow the level of production to remain stationary, both for their own sakes and for the sake of the workers?

This is a problem to be well considered. High wages alone will never settle the unrest which is sweeping over the country. Our ten million factory workers must be given an opportunity to escape from their monotonous, changeless task, to comprehend something beyond mere daily routine, and to express their own personal ambitions in working out of unskilled labor to more skilled and interesting work. The industrial leaders will find that the men will more than pay for their training in increased output and the development of leaders who can intelligently direct the workers. Not only will it result in increased efficiency instead of increased expenditure, but it will also bring contentment among the men by the knowledge that they have a chance to increase their earning power and so gain independence and higher education. Colonel Woods has offered this suggestion as the

fundamental approach toward solving the high cost of living and minimizing industrial unrest. Corporations and employers who desire further information are urged to communicate with his New York office at 360 Madison Avenue.

THE CANEY CREEK COMMUNITY CENTRE.

An interesting project for bringing about the sanitary regeneration of a Southern district is illustrated in the organization of The Caney Creek Community Centre in the mountainous district of the "poor whites" in Knott County, Kentucky. Here there are gathered together about two hundred and fifty families and fourteen hundred individuals within a territory of about forty square miles. Originally of good Celtic stock, these people have lived in isolation so long that they are at present far behind the modern standards of hygienic living.

In order to improve the conditions in which these mountaineers are now living, efforts are being made to better the homes and sanitation of the community. A farm has been purchased, a community club formed, a clubhouse erected, and a comprehensive inheritance-health survey has been begun. A district nurse has been employed to direct the care of babies at birth, disinfect houses, give instruction about methods of distributing diseases, adopt measures toward the isolation of infectious diseases, and secure the coöperation of families in the treatment of trachoma and other eye troubles. A hospital and rest home is being constructed for the prevention and treatment of disease, and a clubhouse affords opportunities to visiting physicians to give educational talks. Plans are also being made whereby lantern lectures may be given to the people at schoolhouses and other places of public gathering. It is expected that these lectures and the activity of the district nurse will make it possible to secure the coöperation of the community in improving the general sanitation of the district.

That the North is interested in this project is evidenced by the financial and personal aid which has been given to The Caney Creek Community. A Wellesley woman is to be the director of the Wellesley Recreation Hall, for which funds have already been pledged in part. Radcliffe Cottage is the home and center of administrative activities. The Rest Home and hospital, to be about forty feet square and with three available floors, is under construction, although funds are still needed for its completion. Other buildings will be devoted to industrial training.

This effort of The Caney Creek Community Center to uplift the inhabitants of a mountainous Southern district illustrates the great need which exists throughout many sections of the country for just this sort of scientific aid and direction. Organizations conducted in the spirit with which The Caney Creek Community Center has undertaken its service will effect a long needed awakening among the backward members of our rural societies to a sense of individual responsibility and pride in improved sanitary conditions.

MEDICAL NOTES.

Dr. Strong as Medical Red Cross Director.—Dr. Richard P. Strong, professor of tropical Medicine at the Harvard Medical School, sailed recently for Europe to undertake his duties as general medical director of the League of Red Cross Societies, which will have its headquarters at Geneva. This league is an international association of the Red Cross Societies of the nations of the world and will act as a centralized agency for the improvement of public health, the prevention of disease, and the mitigation of suffering in all countries.

Dr. Strong's experience has made him well fitted for his task. In 1913 he came as a brilliant student of tropical diseases in the Philippine Islands, where he had been stationed as an Army medical officer many years before, to the Harvard Medical School, where he was made head of the School of Tropical Medicine. In 1915, Dr. Strong became the leader of the international corps of workers who wiped out the typhus epidemic which the German invasion brought into Serbia. He then returned to Harvard for a year, but went back to Europe when the United States entered the war in 1917. During the war he was in charge of the division of infectious diseases of the American Expeditionary Forces, and of the investigations carried out upon trench fever. He also represented the American Ex-

peditionary Forces on the inter-allied sanitary commission. After the signing of the armistice, Dr. Strong directed the department of medical research and intelligence for the American Red Cross in Paris, and was instrumental in organizing the League of Red Cross societies, of which he is now to be the chief medical officer. In recognition of his services during the war, Dr. Strong was awarded the Distinguished Service Medal, the British Order of Commander of the Bath, and the Chinese Striped Tiger, and has been made an officer in the French Legion of Honor, and grand officer of the Serbian Cross of Saint Salva. He has been granted leave of absence from Harvard University for another year.

BOSTON AND MASSACHUSETTS.

DEATHS FROM DIPHTHERIA IN MASSACHUSETTS.—It has been announced that in order to aid in preventing unnecessary mortality from diphtheria, the State Department of Health has organized an educational campaign for the instruction of persons most in need of it. Bulletins have been distributed among school children and an appeal has been sent to all organized agencies who are interested in public health work to coöperate in attempting to improve local conditions. Upon request, State District Health Officers will be sent to discuss the diphtheria situation.

It has been estimated that during the past seven years about 650 students have died annually in this State from diphtheria. The knowledge which we have of the use of antitoxin makes these deaths needless. It has been found that in cases where antitoxin has been given on the first day, practically all have recovered; when administered on the second day, 95 per cent. recovered; on the third day, 87.5 per cent.; on the fourth, 78 per cent.; on the fifth, 61 per cent.; and on the sixth, less than 50 per cent. recovered. Of 1,000 deaths from diphtheria investigated, the State Department has found that 65 per cent. occurred in children who were not more than five years, and 25 per cent. had been ill for a week or more before medical aid was sent for. The necessity of recognizing the importance of a "sore throat" cannot be too strongly emphasized.

INVESTIGATION OF NURSING EDUCATION.—Miss Anne Hervey Strong, director of the School of Public Health Nursing, conducted by Simmons College and the Instructive District Nursing Association, has been appointed to the Winslow committee for the investigation of nursing education, under the auspices of the Rockefeller Foundation. The investigation will be carried on for one year, under the direction of Miss Josephine Goldmark, and will undoubtedly be of great importance in the development of nursing education.

During Miss Strong's year of absence, Miss Loula E. Kennedy will be the acting director of the School of Public Health Nursing. Miss Kennedy is a graduate of Goucher College, Baltimore, and of the Johns Hopkins Training School. She had charge of the nursing in Dr. Grenfell's Mission Hospital in Labrador, and has been educational secretary of the Tuberculosis League of Pittsfield, director of the Department of Hygiene and Home Nursing in the Kansas State Agricultural College, and has recently been teaching in the Army Training School for Nurses at Camp Meade.

WEEK'S DEATH RATE IN BOSTON.—During the week ending October 18, 1919, the number of deaths reported was 203 against 763 last year, with a rate of 13.29 against 50.72 last year. There were 39 deaths under one year of age against 71 last year.

The number of cases of principal reportable diseases were: Diphtheria, 82; scarlet fever, 30; measles, 51; whooping cough, 16; typhoid fever, 5; tuberculosis, 53.

Included in the above were the following cases of non-residents: Diphtheria, 5; scarlet fever, 6; tuberculosis, 5.

Total deaths from these diseases were: Diphtheria, 3; measles, 1; whooping cough, 1; tuberculosis, 21.

Included in the above were the following non-residents: Diphtheria, 2; tuberculosis, 1.

Influenza cases, 9; deaths, 1. Last year, corresponding week, influenza cases, 1188; deaths, 463.

BEQUEST TO SPRINGFIELD HOSPITAL.—By the will of the late Mrs. Anna Chapin Rumrill, the sum of $150,000 was bequeathed to the Frederick Wilcox Chapin Memorial Hospital, a branch of the Springfield Hospital.

Massachusetts Committee for the Red Cross Christmas Seal Sale.—The following Boston men are included in the State Committee for the Red Cross Christmas Seal Sale, to be carried on for the benefit of anti-tuberculosis work:

General Clarence R. Edwards, former Attorney General Albert E. Pillsbury, Internal Revenue Collector Andrew Casey, Colonel Adam Gifford of the Salvation Army, President Edward O. Otis, M.D., of the State League, Louis Kirstein, of William Filene's Sons Company, Dr. Walter P. Bowers, secretary of the State Board of Registration in Medicine, and John L. Stevens, who represents the labor interests on the directorate of the Boston Elevated.

Commemoration of Ether Day.—The seventy-third anniversary of the first administration of ether was commemorated on October 16 at the Massachusetts General Hospital. Dr. Richard C. Cabot reviewed in an address the standards, achievements, and prospects of the hospital. In speaking of the material expansion of the hospital, Dr. Cabot is reported to have said that it is now possible to cut down the stay of patients in the hospital from eleven weeks, as it was in 1855, to about eleven days at the present time. Nearly one thousand doctors and others are now giving their services, either directly or indirectly, to patients. Dr. Cabot paid a tribute to the social service work at the hospital, which, he said, has now taken root in France through the efforts of the foreign branches of the hospital. Dr. Cabot emphasized the importance of taking a greater interest in the community outside of the hospital walls by assisting schools, courts, industrial plants and public authorities in checking disease. He also praised the research work of the hospital, which is being carried on under the direction of Dr. Edsall.

NEW ENGLAND NOTES.

No New England Army Hospital.—Surgeon General Ireland, in discussing the advisability of restoring for New England soldiers a military hospital in New England, preferably at Devens, is reported to have given the following facts in explanation of the present status of military hospitals and as the reasons why it has been judged to be impossible to maintain a hospital for this purpose in New England.

On September 26 there were 20,250 soldier patients in the general hospitals of the United States. On the same date there was a total number of beds in the general hospitals amounting to 27,926. Thus in the hospitals now being operated there were 8,000 vacant beds. In view of this fact, the hospital at Plattsburg Barracks, New York, to which most of the New England soldiers were transferred when Parker Hill Hospital was closed and which was occupied by only a fraction of its full complement of patients—354—was closed on September 30. The soldiers who were patients there have in the main been transferred to the Fox Hills Hospital, Staten Island, New York. The hospital at Spartansburg, South Carolina, was also closed on September 30, when it had only six patients. Other hospitals, including hospitals at Williamsburg Bridge, New York, Colonia, Fort Desmoines Hospital, and Otisville, New York, will be closed within a short time because of the small number of patients. When these hospitals have been closed, there will be only fourteen general soldiers' hospitals in the United States. Of these, four are for tubercular patients and two for the insane. The other eight are permanent army hospitals which will be continued indefinitely, not being emergency institutions. These eight are the Letterman General Hospital, San Francisco; Walter Reed General Hospital, Washington; Fort McHenry Hospital, Baltimore; Fort McPherson Hospital, Georgia; Fort Sheridan Hospital, Illinois; Carlisle Hospital, Carlisle, Pa.; Fox Hills Hospital, Staten Island, New York; Fort Sam Houston Hospital, Texas.

The War Department is striving to centralize the hospitals as far as possible in order to reestablish them as nearly as may be on a peace basis.

War Relief Funds.—The principal New England war relief funds have reached the following amounts:

French Orphanage Fund	$519,564.41
Italian War Relief Fund	309,157.02
French Wounded Fund (for the American Memorial Hospital at Rheims)	223,884.68
Russian Refugees' Relief Fund	93,616.05

New England Tuberculosis Conference.—The New England Tuberculosis Conference was held under the auspices of the National Tu-

berculosis Association at the Narragansett Hotel, Providence, R. I., on October 16 and 17. The following addresses were included in the program:

Modifications in our Community Programs, Based on Recent Experience, by Dr. Donald B. Armstrong; Medical and Scientific Premises for a Progressive Program, by Allen K. Krause; Public Health Authorities, by Dr. Eugene R. Kelley; Tuberculosis Agencies, by Dr. Edward O. Otis; The Place of Tuberculosis in Public Health Teaching, by Dr. C. E. A. Winslow. Various aspects of the tuberculosis problem were discussed by prominent physicians.

The Massachusetts Medical Society.

MEETING OF THE NORFOLK SOUTH DISTRICT MEDICAL SOCIETY.

The Norfolk South District Medical Society held a meeting at the United States Hotel, Boston, on Thursday, October 2, 1919. After the usual business proceedings, Dr. L. R. G. Crandon, Boston, read a "Report of a Reserve Officer in the U. S. Navy."

As a preliminary to his paper, he discussed the recent law which enables the Board of Registration in Medicine to take action against and suspend the license of a registered physician, giving the man the right of appeal only to the Supreme Court. He contended that there should be some means devised whereby a physician can receive the same privileges of stay and legal process that a layman receives for a Superior Court offence. As the law stands, the Board of Registration in Medicine is judge, jury, and executioner,—too much power for one body.

He divided his talk into two parts, the first, on the General Impressions of the Medical Officer in Naval Service, and the second, on Clinical Points of the work. The following is a brief extract of his remarks:—

Experience on active naval duty in wartime has been a revelation to the reserve officer. An admiral of the line once said to the writer, "When you enter the Navy, much more than you can believe depends upon your first associates amongst senior officers. The deck nearly always has a slant and the officers just above you either start you upward or downward and so you are likely to continue." In the medical corps the push seemed to be always upward.

Some reservists expected to find the Medical Corps sharply military, extremely punctilious as to rank and precedence, perhaps not making the reserve officer altogether welcome. In short, we may have believed the Medical Corps to be more naval officers than doctors. The reverse has been the truth. Rank and precedence, outside of military or disciplinary need, were forgotten in all things clinical. We were all doctors, each with a right to be heard and weighed in the measure of his experience.

The examinations for enrolment were searching, complete, quite up to the standard of the best medical schools. They were conducted with promptness, dignity and precision. Occasionally an examining officer "barked" and was discourteous in order to "spring his rank," but he was always the junior man and would have had the same manners if not in the Navy. The physical examination was thorough: the stress of war showed no effect in haste or lowering of requirement. The high standard is in part, no doubt, the reason that the Medical Corps has never been full to its authorized strength.

"Paper-work" and the written relations of the newly enrolled officer to the Department was a revelation to the average doctor. He learned to write letters in military form (which should be universally adopted in commercial life); he learned to write with exactness, to mean precisely what he wrote and to waste no words. Health records and surveys were official documents with far-reaching matters of recompense and justice hanging on them. Written facts and opinions, sharply separated, must show their personal source not only, but also must go through official channels and thus carry out the real unity of the great organization. All this educated the new officer in an entirely new line and must reflect on his whole future in civil practice.

It shortly became apparent to the discerning reservist that the Medical Department was successfully following its plan of organization, namely, at the call for expansion to put the regular officers on military and executive work and to have the clinical work done largely by the reservists.

Better care men could not get than was given patients in the Navy in all respects: technical

skill, quality of food, medicines, sera, vaccines, apparatus, and instruments. Officers and hospital corpsmen followed their work day and night, and, during the influenza pandemic, the sick received attention that $1,000 a week outside could not buy. Every letter, telegram, or inquiry from friends of patients received prompt and explicit reply. Relatives who came to the dangerously ill had free access, received every courtesy, in many instances were given quarters. No hint that political influence had a bearing ever came to the writer's notice. That the dead were well cared for is shown by letters of thanks from all over the country. There were several instances of public funerals held over a thousand miles from the place of death.

The sentence of courts martial seemed severe to the civilian mind, though the rule to mitigate all fines after probation neutralized this severity. It seems that when such great ranges of sentences are allowable, the accused should be entitled to more expert representation and advice than he gets.

Clinically, with always a large number of medical minds to review a given case, few mistakes "get by." The *furor operandi* in certain officers has to be checked, but it is no worse than in civil practice, except that the patient does not feel quite the same freedom to refuse treatment in the service that he may as a civilian. The only frequent clinical error was a tendency to lay rheumatism to a disease arising from the patient's misconduct, rather than to the tonsils and teeth, so constantly guilty. More general x-ray instruction to officers is sadly needed. The more skilful and better clinical officers in some way should be relieved of paper and executive work and assume the status of civilian consulting surgeons. It may seem that grounds for adverse criticism are hard to find. It is quite apparent that the Department was ready for the recent emergency, rose to it, and made good. The reservist congratulates the regular.

Clinical impressions are here noted in brief. Following E. H. Place of the Boston City Hospital, who removes tonsils in scarlet fever as soon as initial fever is passed, Dr. Crandon went farther and removed all inflamed tonsils in acute tonsillitis and peritonsillar abscess, with 100% good results. The surgeon works behind a narrow vertical plate glass screen. Unerupted third molars were removed in large numbers, for near and distant neuralgias. In empyema, operation was delayed to establish as high an immunity as possible. The "Walter Reed" technique was used. Where the fluid was very toxic or embarrassing in its amount, it was drawn off through a large aspirating needle, and two ounces of a solution of 2% formalin in glycerine instilled at once through the same needle. This procedure is repeated every two to five days till either (1) no more fluid is formed and the cavity is sterile, or (2) when the fever is gone, a thoracostomy may be done without shock.

Miscellany.

REDUCING MATERNAL MORTALITY: A PLEA FOR BETTER TREATMENT OF UNMARRIED MOTHERS.*

In several of our recent Bulletins we have pointed to the frequent association of criminal abortion with a high maternal mortality rate. It is obvious, therefore, that efforts to reduce high maternal mortality should consist largely on an attack of the causes of criminal abortion. This problem is beset with so many difficulties that a helpful discussion such as that recently conducted in London by the Child Welfare Council of the Social Welfare Association is sure to be welcomed. We accordingly abstract the following from the *Lancet* of February 23.

After calling attention to the high infant death rate among children born out of wedlock, and placing the number of illegitimate births in Great Britain at approximately 50,000 a year, the article deplores the present manner in which society treats the unmarried mother. "From the public health aspect there has never been any excuse for the differential treatment of different groups of necessitous mothers. The interest of the child is paramount. But those who fear that any relaxation of 'deterrent' methods in regard to illegitimate parenthood may result in its increased frequency should look at all sides of a situation which is undergoing rapid changes. The means of preventing conception and of arresting embryonic life at its early stages, are, for better or for worse, becoming the common knowledge of the workers of this country.

* From the weekly Bulletin of the New York City Health Department, April 7, 1918.

Impregnation or the opportunity for it having taken place, it may therefore be morally the more courageous, as it is hygienically the more fitting, thing for the unmarried mother to take the risk of bearing a child. The fear of public disgrace may simply result in action which blunts the private conscience. Some of these views were presented with force at a conference on provision for unmarried mothers and their children convened at the Mansion House on February 14th by the Child Welfare Council of the Social Welfare Association for London. Marked harmony characterized the proceedings of this conference, beginning with Sir Charles Wakefield's sympathetic opening address and ending with a unanimous decision to form a National Council for securing better provision for mother and child on the lines laid down in the following recommendations:

1. That any scheme adopted should be elastic and not exclude any mothers in need; whether married or unmarried; should be carried out in conjunction with the health authorities and existing societies, and be linked up with maternity and infant welfare work; and should enable mothers to keep their babies with them for at least two years.

2. That provision should be made in the following forms: (a) waiting homes for expectant mothers; (b) maternity homes; (c) allowance for mothers whose circumstances and home surroundings make it desirable for them to continue to live at home; (d) residential accommodation, with day nurseries attached, for mothers (with babies) who wish to live with their babies and go out to work; (e) foster-mothers, small homes, or adopting parents for the babies of those who cannot keep their children with them; (f) special homes for mothers suffering from such defect or diseases as should preclude them from keeping their children with them.

3. That the cost of the provision recommended should be met partly by grants from Government departments and local authorities, and partly by voluntary subscription and payments from the mothers, but in no case by the Poor-law authorities.

A new National Council may seem to some to be superfluous, but from the figures which we began by quoting it will be seen to have each year 50,000 births to deal with and some thousands of avoidable deaths.

NOTICE.

BOSTON CITY HOSPITAL.—The first of the monthly clinical meetings of the Boston City Hospital, for the year, will be held on Thursday, Nov. 6, 1919, at 8.15 P.M., in the Cheever Surgical Amphitheatre. To this and succeeding meetings, to be held on the first Thursday of the month, the profession, graduate and undergraduate, is cordially invited. Each meeting will consist of an informal presentation and discussion of a timely subject, followed by the demonstration of clinical material of unusual interest. Light refreshments will be served after the meetings.

November 6, 1919.—The Treatment of Empyema. Discussions by Dr. Whittemore of the Massachusetts General Hospital, and Doctors Cotton and Locke. Case presentations.

SOCIETY NOTICE.

BRISTOL SOUTH DISTRICT MEDICAL SOCIETY.—The semi-annual meeting will be held at the Public Library, New Bedford, on Tuesday, November 6, at 5 P.M.

Dr. A. J. A. Hamilton, of Boston, will read a paper on Pathology and Surgical Treatment of Gastric and Duodenal Lesions. Illustrated.

The Censors will meet at 3.30 P.M., to examine Drs. C. C. Nevin, of Edgartown; L. J. Pobirs, of New Bedford; E. L. Merritt, R. P. MacKnight, and E. T. Learned, of Fall River, for membership.

A. J. ABBE, *Secretary.*

RECENT DEATHS.

DR. HORACE PERKINS MAKECHNIE, a retired Fellow of the Massachusetts Medical Society, died suddenly of heart disease, at his home in West Somerville, October 16, 1919, aged 78 years.

Dr. Mckechnie was born in Ripley, Maine, April 15, 1841. He was graduated from Tufts College in 1865. He became principal of the Green Mountain Institute in Vermont and later went to Somerville and became principal of the Old Lincoln School.

In 1879 he was graduated from Bellevue Hospital Medical College in New York and, after practising for a short time in Cambridge, removed to West Somerville.

Dr. Makechnie was formerly president of the Somerville Medical Society, and he had been a member of the staff of the Somerville Hospital since it was started. He was a member of the Massachusetts Medical Society, the New England Historic-Genealogical Society, and several fraternal organizations. He is survived by his widow and two sons, Ernest H. Makechnie, a musician of Somerville, and Dr. Arthur N. Makechnie of North Cambridge.

DR. DAVID BERNARD VAN SLYCK died in September, 1919, at his home in Pasadena, California, at the age of 90 years. Dr. Van Slyck was born in New York and practiced in Brookline, Mass., from 1876 until 1887. He was graduated from the University of Buffalo Medical Department in 1832. He was a former president of the Southern California Medical Society, and resigned from the Massachusetts Medical Society in 1887. He served through the Civil War with the 101st New York Infantry and the 22nd New York Cavalry, and was medical director of the Army of the Shenandoah. He is survived by his widow, Mrs. Agnes M. Van Slyck.

DR. EBENEZER FARRINGTON SPAULDING died on Oct. 18, at the age of 84 years. Dr. Spaulding was born in Francestown, N. H. He studied at Rush Medical College, Chicago, in 1861, and received a medical degree from Harvard Medical School in 1866. From 1857 to 1860 he was a master of a grammar school in Janesville, and from 1862 to 1865 he served as assistant surgeon with the 7th Wisconsin. Dr. Spaulding began practising in Boston in 1869. He married Miss Ada H. Pearson of Janesville, Wisconsin, in 1864.